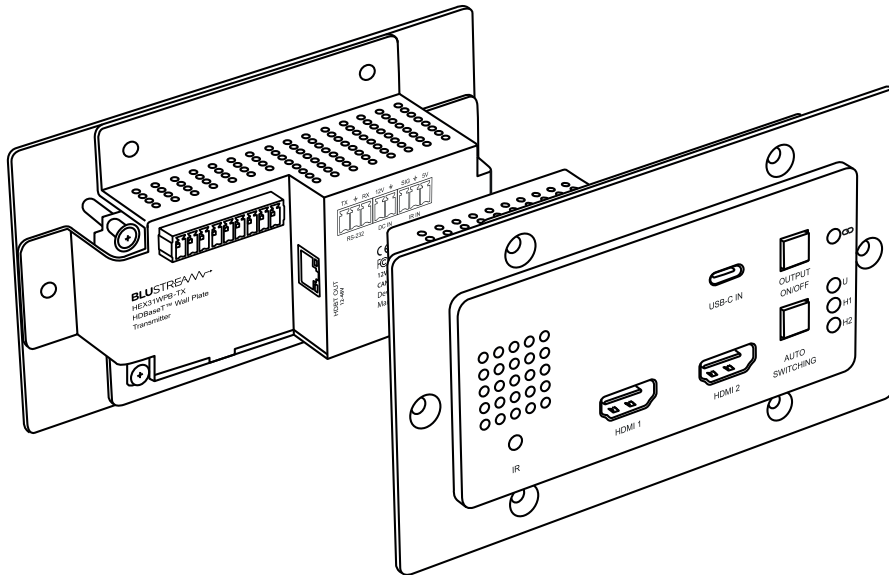


# HEX31WPB-TX

## Quick Reference Guide



## Introduction

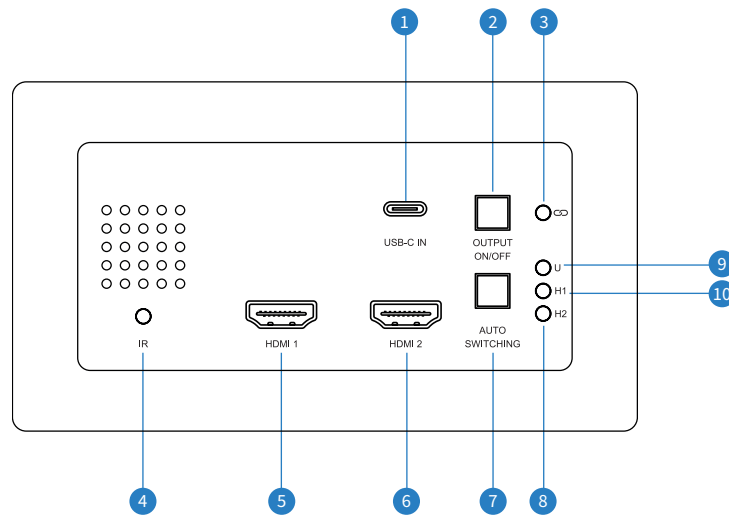
Our HEX31WPB-TX HDMI / USB-C wall plate HDBaseT™ Transmitter is a multi-format 4K input switcher solution delivering HDMI and USB-C inputs up to 70m at 1080p (40m at 4K 60Hz 4:2:0). The HEX31WPB-TX features both manual or automated source selection and includes display on / off control via CEC, RS-232 and IR (via compatible HDBaseT™ receiver / matrix). The HEX31WPB-TX has been designed to work with all Blustream HDBaseT™ receiver and matrix solutions, be installed in both UK and European backboxes, and can be powered locally or from compatible Blustream HDBaseT™ products.

### FEATURES:

- Features 2 x HDMI & 1 x USB-C inputs with manual / auto source selection
- Advanced HDBaseT™ technology offering distribution of video and audio over a single CAT cable
- Supports 4K UHD video up to 40m (3840 x 2160 @30Hz 4:4:4, 4096 x 2160 @24Hz 4:4:4, and 4K @60Hz 4:2:0)
- Extends HDMI at 1080p up to a distance of 70m
- Supports all known HDMI audio formats including Dolby TrueHD, Dolby Atmos, Dolby Digital Plus and DTS-HD Master Audio transmission
- Manual input selection via front panel and RS-232
- Programmable ON / OFF button utilising IR, RS-232 or CEC for control of display device at HDBaseT™ receiver
- Supports 12V-48V PoC from compatible Blustream HDBaseT™ receiver / matrix products
- Bi-directional RS-232 pass through
- Supports IR pass-through to HDBaseT™ device
- Compatible with all Blustream HDBaseT™ receiver / matrix products\*
- Magnetic faceplate surround allowing both UK & EU backbox compatibility
- HDCP 2.2 support

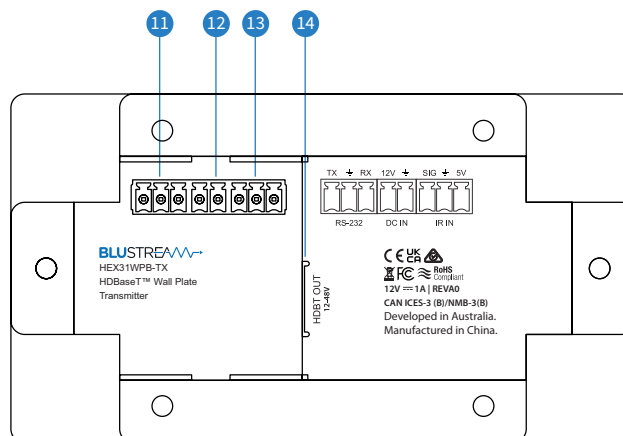
\*Technical performance is subject to the features supported on the connected HDBaseT™ device

# Front Panel Description



- 1 USB-C Input - Type C USB port to connect to USB-C source device
- 2 Output ON / OFF Button - Triggers the output on / off sequence (see Output On / Off section on next page)
- 3 HDBaseT™ Link Status Indicator - Illuminates when the Transmitter is connected to the Receiver / Matrix successfully
- 4 IR Receiver - Built in IR sensor for IR pass through
- 5 HDMI Input 1 - Type A HDMI port to connect HDMI source device
- 6 HDMI Input 2 - Type A HDMI port to connect HDMI source device
- 7 Auto Switching Button - Press to change source, hold for 3 seconds to enable / disable auto signal sense switching.
- 8 HDMI Input 2 Indicator - Illuminates when HDMI 2 input is connected
- 9 USB Input Indicator - Illuminates when USB-C input is connected
- 10 HDMI Input 1 Indicator - Illuminates when HDMI 1 input is connected

# Rear Panel Description



- 11 RS-232 - 3-pin Phoenix connector for RS-232 pass through to / from compatible HDBaseT™ receiver / matrix products
- 12 12V DC Input - 2-pin Phoenix connector to connect to Blustream 12V power supply (supplied)
- 13 IR Receiver Input - 3-pin Phoenix connector to connect to Blustream IR Receiver (phoenix block supplied, IR receiver not supplied)
- 14 HDBaseT™ Output - RJ45 HDBaseT™ port to connect to the HDBaseT™ input port of the compatible Blustream HDBaseT™ receiver / matrix device

## Output On / Off Button

This product features an Output On / Off button that can turn on or off the display connected to the HDBaseT™ Receiver via CEC, IR or RS-232. The default setting for this is disabled and the function needs to be enabled prior to use. This button allows custom RS-232 and IR signals to be learned into the On and Off commands.

For further information please see the HEX31WPB-TX User Manual - available to download from the Blustream website.

## RS-232 Configuration

The RS-232 port is used for configuration / control of the product, as well as pass through of RS-232 commands to a compatible Blustream HDBaseT™ receiver / matrix device.

The default RS-232 communication settings are:

**Baud Rate:** 57600

**Data Bit:** 8

**Stop Bit:** 1

**Parity Bit:** none

For a complete RS-232 command list please see the HEX31WPB-TX User Manual - available to download from the Blustream website.

## EDID Control

EDID (Extended Display Identification Data) is a data structure that is used between a display and a source. This data is used by the source to find out what audio and video resolutions are supported by the display. By pre-determining the video resolution and audio format of the source and display device you can reduce the time needed for EDID hand shaking thus making switching quicker and more reliable.

Configuration of the EDID settings for each input can be achieved using the following RS-232 commands to specify the required EDID:

### EDIDxxDFzz

Where xx = Input: 00 refers to ALL inputs; 01 = input 1 (HDMI 1); 02 = input 2 (HDMI 2); 03 = input 3 (USB-C)  
zz = EDID as shown below

zz=00: HDMI 1080p@60Hz, Audio 2ch PCM

zz=01: HDMI 1080p@60Hz, Audio 5.1ch PCM/DTS/DOLBY

zz=02: HDMI 1080p@60Hz, Audio 7.1ch PCM/DTS/DOLBY/HD

zz=03: HDMI 1080i@60Hz, Audio 2ch PCM

zz=04: HDMI 1080i@60Hz, Audio 5.1ch PCM/DTS/DOLBY

zz=05: HDMI 1080i@60Hz, Audio 7.1ch PCM/DTS/DOLBY/HD

zz=06: HDMI 1080p@60Hz/3D, Audio 2ch PCM

zz=07: HDMI 1080p@60Hz/3D, Audio 5.1ch PCM/DTS/DOLBY

zz=08: HDMI 1080p@60Hz/3D, Audio 7.1ch PCM/DTS/DOLBY/HD

zz=09: HDMI 4K2K@30Hz, Audio 2ch PCM

zz=10: HDMI 4K2K@30Hz, Audio 5.1ch PCM/DTS/DOLBY

zz=11: HDMI 4K2K@30Hz, Audio 7.1ch PCM/DTS/DOLBY/HD

zz=12: HDMI 4K2K@60Hz 4:2:0 8 bit, Audio 2ch PCM

zz=13: HDMI 4K2K@60Hz 4:2:0 8 bit, Audio 5.1ch PCM/DTS/DOLBY

zz=14: HDMI 4K2K@60Hz 4:2:0 8 bit, Audio 7.1ch PCM/DTS/DOLBY/HD

zz=15: DVI 1280x1024@60Hz, Audio None

zz=16: DVI 1920x1080@60Hz, Audio None

zz=17: DVI 1920x1200@60Hz, Audio None

zz=18: DVI 1920x1200@60Hz, Audio 2ch

zz=19: Copy User EDID 1 - refer to User Manual for details

zz=20: Copy User EDID 2 - refer to User Manual for details

zz=21: EDID Pass through

## Specifications

### HEX31WPB-TX

- **Video Input Connectors:** 2 x HDMI Type A, 19-pin, female, 1 x USB-C Type C
- **Video Output Connectors:** 1 x HDBaseT™ RJ45 connector
- **RS-232 Serial Port:** 1 x 3-Pin Phoenix connector
- **IR Input Port:** 1 x 3-Pin Phoenix connector
- **Product Upgrade:** 1 x Micro USB female
- **Local Power Input:** 1 x 2-Pin Phoenix connector
- **Module Dimensions (W x H x D):** 136mm x 76mm x 44mm (without faceplate)
- **Faceplate Dimensions (W x H x D):** 146mm x 86mm x 6mm
- **Cut Out Dimensions (W x H x D):** 109mm x 50mm x 36mm
- **Mounting Hole Spacing:** UK 121mm CTC, EU 60mm CTC
- **Backbox Mounting Depth:** 40mm (minimum), 47mm (recommended), UK or EU double gang
- **Shipping Weight:** 1.0kg
- **Operating Temperature:** 32°F to 104°F (-5°C to +55°C)
- **Storage Temperature:** -4°F to 140°F (-25°C to +70°C)
- **Power Supply:** 12V/1A DC

**NOTE:** Specifications are subject to change without notice. Weights and dimensions are approximate.

## Package Contents

### HEX31WPB-TX

- 1 x HEX31WPB-TX
- 1 x 12V/1A DC Power Supply
- 1 x Magnetic Faceplate
- 1 x RS-232 Control Cable
- 1 x Quick Reference Guide

## Certifications

### FCC NOTICE

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

**CAUTION** - changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

### CANADA, INDUSTRY CANADA (IC) NOTICES

This Class B digital apparatus complies with Canadian ICES-003. Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

### CORRECT DISPOSAL OF THIS PRODUCT

This marking indicates that this product should not be disposed with other household wastes. To prevent possible harm to the environment or human health from uncontrolled waste disposal, recycle it responsibly to promote the sustainable reuse of material resources. To return your used device, please use the return and collection systems or contact the retailer where the product was purchased. They can take this product for environmentally safe recycling.